File No. 100049 Committee Item No. 7
Board Item No. 01

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Committee BUDGET AND FINANCE Date 1/27/10

Board of Supervisors Meeting Date 02/09/10

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OTHER (Use back side if additional space is needed)

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Completed by: Gail Johnson Date 1/22/10
Completed by: [signature] Date 1/28/10

An asterisked item represents the cover sheet to a document that exceeds 25 pages. The complete document is in the file.

FILE NO. 100049 ORDINANCE NO.

[Accept-Expend Federal Grant and Amendment to the Annual Salary Ordinance, FY 2009-2010.]

Ordinance authorizing the Department of the Environment (SF Environment) to accept and expend a grant in the amount of $80,000 from the US Environmental Protection Agency-Region 9 to research and develop a new protocol for ENERGYSTAR in Multifamily High-rise residential and mixed-use buildings and amending Ordinance Number 183-09 to reflect the addition of one (1) grant funded position at the Department of the Environment.

Note: Additions are *single-underline italics Times New Roman*; deletions are ~~*strikethrough italics Times New Roman*~~. Board amendment additions are double underlined. Board amendment deletions are ~~strikethrough normal~~.

Be it ordained by the People of the City and County of San Francisco:

Section 1. Findings

Based upon evaluation of responses to an Environmental Protection Agency-Region 9 Request for Proposals in the area of Pollution Prevention and Source Reduction, SF Environment's Green Building program was selected to be the recipient of $80,000 to develop a new protocol for ENERGYSTAR in Multifamily High-rise residential and mixed-use buildings; and,

This project will advance capacity in the high-rise multifamily residential building sector to increase efficiency in the use of raw materials, energy and water.

This project supports the City and County of San Francisco's Climate Action Plan goal of reducing Greenhouse Gas Emissions related to the building sector, as high-rise multifamily buildings are one of the dominant building types in the City and County of San Francisco with more under development.

This project supports California's aggressive goals of reducing greenhouse gas emissions under the AB32 Climate Change Initiative scoping plan.

This project will have a larger national impact due to its creation of best practices, thus ensuring San Francisco's reputation as an international leader on environmental issues.

Section 2. Authorization to Accept and Expend Funds.

The Board of Supervisors hereby authorizes the Department of the Environment to accept and expend on behalf of the City and County of San Francisco $80,000 in funds from the US Environmental Protection Agency-Region 9 to research and develop a new protocol for ENERGYSTAR in Multifamily High-rise residential and mixed-use buildings.

The Department of the Environment is further authorized to furnish whatever additional information or assurances the funding agency may request in connection with this grant, and to execute any and all agreements necessary to carry out the purpose of the grant.

The grant budget includes provision for indirect cost of $5,926.

The term of the US Environmental Protection Agency-Region 9 grant is from November 1, 2009 through October 31, 2011 and requires a match of $4,211.

Section 3. Grant-funded Positions; Amendment to FY 2009-2010 Annual Salary Ordinance.

The hereinafter designated sections and items of Ordinance No.183-09 (Annual Salary Ordinance, FY 2009-2010) are hereby amended to ADD ONE (1) position in the Department of the Environment, and reads as follows:

Department: ENV-22

Program: CIR – GREEN BUILDING

Subfund: 2S-ENV-GNC

Index Code: 220155

Amendment	Number of Positions:	Class and Item No.:	Compensation Schedule:
Add	1 42% FTE	9922 Public Serv. Aid.	$1,405 B $1,405

APPROVED AS TO FORM:
DENNIS J. HERRERA, City Attorney

By: _____
Thomas Owen
Deputy City Attorney

APPROVED AS TO CLASSIFICATION
DEPARTMENT OF HUMAN RESOURCES

By: _____
Micki Callahan
Director

APPROVED: _____
For Gavin Newsom
Mayor

APPROVED: _____
For Ben Rosenfield
Controller

Recommended:

_____
Jared Blumenfeld, Director
Department of the Environment

TO:	**Angela Calvillo, Clerk of the Board of Supervisors**
FROM:	**The Department of the Environment**
DATE:	**10/27/09**
SUBJECT:	**Accept-Expend Federal Grant and Amendment to the Annual Salary Ordinance**
GRANT TITLE:	**ENERGY STAR in multi-unit high rise buildings**

Attached please find the original and 4 copies of each of the following:

_X_ Proposed Ordinance; original signed by Department, Mayor, Controller, City Attorney, Human Resources

_X_ Grant information form, including disability checklist

_X_ Grant budget

_X_ Grant application

_X_ Grant award letter from funding agency

_X Other (Explain): Legislative Checklist

Special Timeline Requirements:

Departmental representative to receive a copy of the adopted ordinance:

Name: Shawn Rosenmoss Phone:415-355-3746

Interoffice Mail Address:

Certified copy required Yes ☐ No X

(Note: certified copies have the seal of the City/County affixed and are occasionally required by funding agencies. In most cases ordinary copies without the seal are sufficient).

Legislative Checklist to be submitted with all supporting materials for items scheduled on a Committee Consent Calendar

Board of Supervisors File Number:

Department: Environment

Department Contact: Shawn Rosenmoss

Contact Phone Number: 415-355-3746

Type of Legislation on Consent Calendar:

- ☐ amendments to the City Code that have no fiscal impact and have not been subjected to the 30-day rule provided in Rule 5.41 (which governs amendments to the City Code that have been determined by the President to create or revise major City policy);
- ☐ specific authorizations to sell bonds;
- ☐ the refunding of bonds when done only to achieve lower interest rates and cost savings for the City;
- ☐ authorizations for the acceptance of gifts;
- ♦ authorizations for the acceptance and expenditure of grant funds;
- ☐ authorizations for renewing property leases, with no significant changes in the terms of the lease (the implementation of COLAs is not considered a significant change in the terms of a lease);
- ☐ supplemental appropriations that only involve non-General Fund monies or re-appropriate funds that have been previously appropriated by the Board of Supervisors;
- ☐ releases of reserves under $500,000;
- ☐ other items that the Committee Chair and the Budget Analyst agree do not require a Budget Analyst's review and report.

Description: This resolution authorizes the Department of the Environment (SF Environment) to accept and expend a grant in the amount of $80,000 from the Environmental Protection Agency Region 9 and amend Ordinance Number 183-09 to reflect the addition of one (1) grant funded position at the SF Environment to work with key nonprofit organizations and housing developers to research and develop a new protocol for a ENERGYSTAR in Mutifamily High-rise residential and mixed-use buildings, an emergent segment of the residential building stock that has yet to implement a unique labeling standard and protocol for ENRGYSTAR homes.

Presentation of Budgetary Information to Board Committees in Conformance with Budget Analyst Reference Guide

- ♦ Summary budget information included
- ☐ Position Detail Information (included in budget)
- ☐ Equipment Detail Information
- ☐ Capital/Facilities Improvement Project Information
- ☐ Consultant/Contractor Expenditures and Selection Processes
- ☐ Written explanation and justification for budget request.

Information provided in Conformance with Budget Analyst Reference Guide for the following:

- ♦ Amendments to City Code (Administrative Code, Municipal Code, Health Code, etc.)
- ☐ Issuance of Debt (i.e., Bonds)
- ☐ Gifts to the City
- ♦ Grants (authorization to apply for, accept and expend)
- ☐ Property Leases – City as Lessor
- ☐ Property Leases – City as Lessee
- ☐ "Proposition J" Contracts (City contractors under Charter Section 10.104)
- ☐ Releases of Reserves
- ☐ Supplemental Appropriations
- ☐ Memoranda of Understanding (MOU) and other Agreements

Other Information Provided: _____

File Number: _____
(Provided by Clerk of Board of Supervisors)

Grant Information Form
(Effective January 2000)

Purpose: Accompanies proposed Board of Supervisors Ordinance authorizing a Department to amend the Annual Salary Ordinance and accept and expend grant funds.

The following describes the grant referred to in the accompanying Ordinance:

1. Grant Title: ENERGYSTAR in Multi-Unit Highrise Buildings

2. Department: Department of the Environment City and County of San Francisco (SF Environment)

3. Contact Person: Shawn Rosenmoss Telephone: 415-355-3746

4. Grant Approval Status (check one):

[X] Approved by funding agency [] Not yet approved

5. Amount of Grant Funding Approved or Applied for: $80,000

6a. Matching Funds Required: 5% of total budget, which is $4,211
b. Source(s) of matching funds (if applicable): Existing salary for SFE Commercial Green Building Manager

7a. Grant Source Agency: Environmental Protection Agency-Region 9
b. Grant Pass-Through Agency (if applicable): none

8. Proposed Grant Project Summary:

The ENERGYSTAR/IAP Mutifamily Highrise Pilot is a collaboration of SF Environment, and the County of Alameda's Green Building Program (a program of Stopwaste.org) to work with nonprofit organizations and housing developers to research and develop a new protocol for a ENERGYSTAR in Mutifamily High-rise residential and mixed-use buildings, an emergent segment of the residential building stock that has yet to implement a unique labeling standard and protocol for ENRGYSTAR homes. Results will be used to inform San Francisco developers of better energy efficiency practices.

9. Grant Project Schedule, as allowed in approval documents, or as proposed:
Start-Date: November 1, 2009 End-Date: October 31, 2011

10. Number of new positions created and funded: 1 part time 9922 position

11. If new positions are created, explain the disposition of employees once the grant ends? Employees hired into this position will understand that it is grant-funded and specific to the project and will end when grant funding ends.

12a. Amount budgeted for contractual services: $ 32,947

b. Will contractual services be put out to bid?

SF Environment will provide a sub-award of $23,947, which will not be put out to bid because one of the grant requirements of the funding source is that SFE partner with Green Building in Alameda County: a Program of

Stopwaste.org, which represents the Alameda County Waste Management Authority and Source Reduction & Recycling Board.

A smaller amount of funding ($9,000) will be provided to a contractor who was awarded a Professional Services Contract with the City which was entered into through standard City procedures for procurement of services.

c. If so, will contract services help to further the goals of the department's MBE/WBE requirements? Yes.
d. Is this likely to be a one-time or ongoing request for contracting out? One-time

13a. Does the budget include indirect costs? [X] Yes [ ] No
b1. If yes, how much? $ 5,926
b2. How was the amount calculated? It is the percentage of the total budget that would be approved by the funding agency
c. If no, why are indirect costs not included?
[ ] Not allowed by granting agency [ ] To maximize use of grant funds on direct services
[ ] Other (please explain):

14. Any other significant grant requirements or comments:

****Disability Access Checklist*****

15. This Grant is intended for activities at (check all that apply):

[X] Existing Site(s)	[X] Existing Structure(s)	[X] Existing Program(s) or Service(s)
[ ] Rehabilitated Site(s)	[ ] Rehabilitated Structure(s)	[ ] New Program(s) or Service(s)
[ ] New Site(s)	[ ] New Structure(s)	

16. The Departmental ADA Coordinator and/or the Mayor's Office on Disability have reviewed the proposal and concluded that the project as proposed will be in compliance with the Americans with Disabilities Act and all other Federal, State and local access laws and regulations and will allow the full inclusion of persons with disabilities, or will require unreasonable hardship exceptions, as described in the comments section:

Comments:

Departmental or Mayor's Office of Disability Reviewer: _____
(Name)

Date Reviewed: 11/9/09

Department Approval: Shawn Rosenmoss (Name) Manager of Grants and Fundraising (Title)

_____
(Signature)

Accept and Expend Resolution for SF Environment grant from EPA Energy Star in MultiFamily Buildngs

Personel	Notes	Narrative	EPA grant	SFE Required Match	Total Project
Grant funded Green Building Associate 9922	42%FTE for two years	This position will be employed for a set amount of hours totally 42% of full-time 9922 for the two years of the grant. Coordinate day to day grant activities, reporitng, Identify pilot projects, provide technical assistance, market program, integrate Pilots to GreenPoint Rated, define and publish ESHRMF Participation and Verification criteria Reporting and Eval	$ 30,568		$ 30,568
Green Building Manager 5642		Oversee grant and project, evaluation. Match required by funding source (5% of total project budget) is part of regular salary		$ 4,211	$ 4,211
TOTAL Personnel			$ 30,568	$ 4,211	$ 34,779
Fringes	at 28%	0.28	$ 8,559		$ 8,559
TOTAL Personnel with fringes			$ 39,127	$ 4,211	$ 43,338
Contract/partners					
Green Building in Alameda County	Karen Kho Heather Larson	EPA grant funding is dependent on working with another local government agency with similar high rise building types as San Francisco. Identify pilot projects, provide technical assistance, market pilot program, integrated GreenPoint Rated, work with partners to define and publish ESHRMF Participation and Verification criteria for CA, Energy Verification Services	$ 23,947		$ 23,947
Consultant		Technical assistance. Existing contractor was hired through standard City procurement processes	$ 9,000		$ 9,000
TOTAL Consultant			$ 32,947		$ 32,947
Travel					
		2 staff, fuel and lodging. Small conferences	$ 2,000		$ 2,000
TOTAL Travel			$ 2,000		$ 2,000
Project SubTotal			$ 74,074	$ 4,211	$ 78,285
Indirect	At 8%	0.08	$ 5,926		$ 5,926
PROJECT GRAND TOTAL			$ 80,000	$ 4,211	$ 84,211

Introduction

The green building programs of the San Francisco Department of the Environment (SF Environment) and Stopwaste.org are requesting funding to introduce the EPA's National High-rise Multifamily ENERGY STAR® (HRMFES) program and Indoor Air Plus (IAP) program to the significant number of high-rise multifamily projects within their jurisdictions, promoting energy and resource conservation and enhancing "urban infill" and "climate-smart" development practices leading to reduced GHG emissions and healthier indoor environments.

This project addresses the EPA-R9 Pollution Prevention/Source Reduction criteria by advancing capacity in the high-rise multifamily residential building sector to increase efficiency in the use of raw materials, energy and water. This 1.5-year project aligns with the EPA's strategic plan in four primary targets areas, and specifically helps achieve the goal to reduce BTU consumption.

This California-based project will have a larger national impact due to best practices in collaboration with pre-existing local, state, and national green building/energy efficiency initiatives while specifically addressing the Region 9 priority focus area of "RESIDENTIAL Buildings & Construction."

The lead agency in the project, **SF Environment**, has been charged with developing and supporting environmental actions and programs throughout the City and County of San Francisco. In 2006, San Francisco became the first local government to have its greenhouse gas emissions certified by the California Climate Action Registry.

In addition to its policy work, SF Environment operates programs and services targeting the municipal, commercial and residential sectors.

- SF Environment's Private Sector Green Building Program leads development and implementation of commercial and residential green building requirements and initiatives to reduce energy, water and other resource use in buildings, and provide healthy indoor environments. Key activities include collaborating with other departments on implementation of the City's private sector green building ordinance, and providing technical assistance, education, and market transformation strategic support to industry stakeholders.
- The Energy and Climate Program has operated energy efficiency programs reaching over 9000 businesses and hundreds of multi-family buildings, reducing the citywide load by over 18 MW and is currently beginning a new $10.5 million program to reduce another 8 MW and over 300,000 therms. The Energy and Climate group was instrumental in developing the City's Electricity Resource Plan.
- The Clean Air Program's goals are to reduce air pollution resulting from both mobile and stationary sources and to improve energy security through reducing dependence on imported oil. It achieves these goals by minimizing vehicle trips and miles driven, and promoting advanced technologies in transportation and non-petroleum based fuels.
- San Francisco is also the only municipality in the country that has a program dedicated to environmental justice. SF Environment's Environmental Justice Program primarily serves the City's Bayview Hunters Point and Potrero Hill neighborhoods to mitigate the environmental effects of power plants in those communities.
- SF Environment is a national leader in Waste Diversion, helping San Francisco to achieve a diversion rate of 72% for 2007, and is committed to achieving the City's Zero Waste target in 2020.
- The Toxics Reduction Program seeks to improve the quality of human health and the environment by providing information and services to residents, businesses and City agencies to reduce the use of toxic chemicals and properly manage hazardous waste.

Stopwaste.org represents the Alameda County Waste Management Authority and Source Reduction & Recycling Board operating as one public agency. Since 1976, Stopwaste.org has spearheaded source reduction and recycling programs in Alameda County. Although its focus is local, over the years StoWaste.org has earned a national reputation as a leader in developing innovative waste management and resource conservation programs. The agency's core mission is to reduce the waste stream in Alameda County. Green building is about reducing waste; wasted energy, wasted water, wasted natural resources, wasted building materials.

Conventional building and remodeling practices use a lot of natural resources and create a lot of waste. In fact, debris from building construction and demolition accounts for more than 22% of the materials disposed in California's landfills. To reduce this waste, Green Building in Alameda County (a Stopwaste.org program) provides residents, construction industry professionals and public agencies with a wide range of green building resources and services. Its resources, including the Residential Green Building Guidelines, Green Product Directory, Professional Training curriculum, and model Construction and Demolition and Green Building Ordinances are now used throughout the state of California. All of its technical work, such as the Residential Green Building Guidelines and the quantifications from the GPR climate calculator, remains in the public domain and is available for download free on its website.

Over two-thirds of Stopwaste.org's program budget is allocated to direct member agency services, including policy assistance, technical assistance and grants for public or public-benefit building projects. The remaining one third of is available to sponsor trainings, develop tools (such as the High-rise Multifamily Building Project), and conduct consumer outreach. Out of the approximately $19 million annual budget, $1.5M is specifically allocated to green building. The High-rise Multifamily Building project will be based on green building resources that are already in place. In 2004 Green Building in Alameda County developed Multifamily Green Building Guidelines, the most comprehensive guide to greening multifamily buildings, which have characteristics of both single-family residential and commercial buildings. The GreenPoint Rated program has been rating new multifamily projects since its inception, based on the strategies in the Guidelines, and this project will ensure its optimal application to the High-rise Multifamily market sector.

GreenPoint Rated (GPR), a program administered by Build It Green, is highly regarded around the country because it serves as a model of public-private partnership for market transformation. It also serves as a model program that responds to State specific policies while complementing and collaborating with national efforts underway such as LEED for Homes. While GPR is California specific, the improvement and expansion of this program is replicable throughout the country and has a national impact through program collaboration.

Environmental Results Past Performance/ Programmatic Capability

SF Environment is a truly unique municipal department in that it receives no funding from the City's General Fund and relies on aggressive fundraising activities to meet its program goals. A high percentage of its $15M annual budget is derived from grants and contracts awarded by federal and state agencies.

Past Grant Activity

SF Environment has received several grants from the EPA and DOE. Additionally, SF Environment received several state grants that mirror the size and scope of this proposal. For all grants, SF Environment has maintained accurate, timely reporting in compliance with each particular assistance agreement. Federal grant agreements include the following:

Solar America Initiative-Dept of Energy $200,000; 7/1/07-current
Grant is to remove barriers to solar installations in the City. Grants objectives are being met and all reporting is on time.

LEED/GreenPRINT Grant-EPA R9 Resource Conservation Grant Manager(s) – Timonie Hood
November 2003 - November 2006 Award Amount - $25,000 plus additional $15,000
Grant was to provide LEED (Leadership in Energy and Environmental Design) and green building training to City design professionals in preparation for LEED Silver Ordinance which required LEED on municipal construction projects, as well as to develop GreenPRINT, a database to track municipal green building projects, which is used to report on the cumulative environmental performance to the City and County of San Francisco. The grant was subsequently extended with additional funding to perform outreach on the database to other municipalities and agencies such as universities that are tracking several LEED projects at the same time. Grant required quarterly reports on the progress and advancement of grant goals. All reports have been submitted and all grant outcomes and outputs met.

Dental Mercury Grant-EPA R9 Source Reduction Grant Manager(s) - John Katz
October 2003 - October 2006 Award Amount - $51,500
This grant was provided to provide outreach and education on the proper disposal of dental mercury, to keep it out of San Francisco Bay. All objectives were met and included items such as providing mercury filters for dental offices, holding outreach events for dental staff and producing educational materials. All grant deliverables for this project have been completed. The progress on the grant was reported to the grant managers through period emails and phone conversations and formal updates through semi-annual grant reports. In addition, all information gathered and lessons learnt through this project were presented at various regional workshops (WRPPN, Dental Symposium) and documented on the websites

Green Hospital Grant-EPA R9 Source Reduction Grant Manager(s) - Wendi Shafir
October 2004 - October 2006 Award Amount - $30,000
This project consisted of developing support and materials for "greening" local hospitals. All goals and objectives of the project were met. The Grant Manager receives regular program updated through emails and phone calls. The Grant Manager also attends the workshops hosted for the local hospitals and is a part of the advisory group that helps to plan roundtables. In addition, SF Environment has submitted the semi-annual reports in a timely fashion.

Program Staff

Rich Chien is the Private Sector Green Building Coordinator with the City and County of San Francisco's Department of the Environment. Working closely with government agencies, industry professionals, and nonprofits, Mr. Chien provides outreach, technical assistance, and develops policy initiatives to green commercial and residential buildings in San Francisco. Most recently he led an industry stakeholder process to develop and pass the City's groundbreaking green building code for new construction. Prior to joining the department, Mr. Chien was a city planner for the City of Hayward, and practiced architecture, construction, and LEED/sustainability consulting in Bay Area design firms. Rich received a B.A. in Urban Planning/Environmental Design from University of California, San Diego, and an M.Arch from the San Francisco Institute of Architecture.

Barry Hooper, Private Sector Green Building Specialist with SF Environment, contributes to outreach, incentive program design and delivery, and the implementation of public policies in the City's efforts to improve the performance of the built environment. Prior to joining San Francisco, Barry served as Green Building Coordinator for the City of San Jose, providing technical support for public and

private sector construction projects, and managed the Silicon Valley Energy Watch educational program. He served on the City of Santa Cruz Green Building Working Group, has been a member of the USGBC NCC since 2003 and contributed to development of USGBC branches in Monterey and Silicon Valley. He holds master's degrees from UC Santa Barbara in Geography as well as Environmental Science & Management. Barry is a LEED Accredited Professional and a Build It Green Certified Green Building Professional.

Karen Kho joined Stopwaste.org's Green Building Program in 2003, and manages a number of green building projects in both the residential and commercial sectors. Karen brings nearly a decade of professional experience, with an emphasis on environmental advocacy, community development and transportation policy. She was previously involved with the development of sustainable city policies for Urban Ecology, management of grants for the federal Empowerment Zones program, and development of legislation and regulations at the federal level, US Department of Agriculture and US department of Transportation, and regional level. Karen holds and a Bachelors Degree in Development Studies from U.C. Berkeley, and earned a Master's degree in City Planning from the Massachusetts Institute of Technology.

Heather Larson joined Stopwaste.org's Green Building Program in 2008, and manages consultant contracts for residential green building program development. She contributes technical oversight to green building guidelines and design assistance projects, and to energy cost-effectiveness studies that inform local policy and green building program thresholds. Current responsibilities include development oversight of GreenPoint Rated for Multifamily Existing Homes. Prior to joining Stopwaste.org she served as the Project Manager for the California ENERGY STAR(r) Multifamily New Homes Program (sponsored by PG&E & SCE) and worked as a building science energy efficiency analyst on Title 24 Codes and Standards Enhancement (CASE) projects. In the Utility Program Manager role she represented IOUs to US EPA regarding CA High-rise Multifamily ENEGY STAR® New Homes Pilot; provided verification, building energy simulation and life-cycle cost analysis for mixed-use high-rise projects; conducted trainings and facilitated design meetings on energy efficient building design and technologies, and building energy standards. Heather received a BA in Architecture from U.C Berkeley and a Master of Design Science in Sustainable Design from the University of Sydney in Australia.

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Work Plan

The strategy for this project is three fold; 1) develop the High-rise Multifamily ENERGY STAR (HRMFES) and Indoor Air Plus Multifamily (IAPMF) programs' criteria for the California market; 2) implement the criteria in a limited number of pilot projects in San Francisco and Alameda Counties; 3) integrate the criteria to local/regional Green Building and Utility programs for wide-scale adoption and market penetration.

Because high-rise multifamily is one of the dominant building types of high density infill projects in the Bay Area, the green building programs of the San Francisco Department of the Environment (SFE) and Stopwaste.org (SW) are interested in partnering with the US EPA to launch their ENERGY STAR High-rise Multifamily (ESHRMF) program. As part of this effort SFE and SW also propose to assist in expanding the EPA Indoor Air Plus (IAP) program specifications to high-rise multifamily projects; a qualified consultant will provide the technical work to update these specifications, selected per EPA procurement policy and requirements. In order to maximize market adoption of these residential energy and indoor air quality programs, SFE and SW will work with Build It Green's GreenPoint Rated program, which is referenced in many local government green building ordinances, and other interested Green Building programs such as LEED for Homes, to include the pilot in their program's participation

criteria. This effort includes leveraging Local Government resources and the local Utility's multifamily new construction program, Pacific Gas & Electric's (PGE) California Multifamily New Homes (CMFNH), implemented by Heschong Mahone Group (HMG).

Partners and responsibilities include:

Key Team Members	Roles	Partners and Consultants
San Francisco Department of the Environment (SFE)	Identify pilot projects, provide technical assistance to projects on green measures, market pilot program to City, integrate Pilots to GreenPoint Rated, work with partners to define and publish ESHRMF Participation and Verification criteria for CA	San Francisco Redevelopment Agency; Mayors Office of Housing; housing developers; IAQ specification writer (TBD)
Green Building in Alameda County (GBAC)	Identify pilot projects, provide technical assistance to projects on green measures, market pilot program to Cities, integrate Pilots to GreenPoint Rated, work with partners to define and publish ESHRMF Participation and Verification criteria for CA, Energy Verification Services	14 Member Cities & Unincorporated County; Build It Green; housing developers; IAQ specification writer (TBD)
United States Environmental Protection Agency	Indoor Air Plus (IAP) and ENERGY STAR High-rise Multifamily Pilot programs criteria, labeling and marketing support	EPA; ENERGY STAR New Homes Program; Indoor Air Plus Program
PG&E -California Multifamily New Homes Program (CMFNH)	Provide energy efficiency incentives and technical plan check to pilot projects, work with partners to define and publish ESHRMF Participation and Verification criteria for CA	Heschong Mahone Group, Inc; Local Government Programs

In working with pilot projects, SW and SFE staff will provide assistance, including:

- Technical support to meet ENERGY STAR Pilot requirements
- Technical support to meet Green Building Program (LEED for Homes or GPR) requirements
- Benchmark building to track effectiveness of energy savings measures installed
- ENERGY STAR Marketing Benefits- publicity through public agency announcements
- Consultation on funding- grants, loans incentives available to projects.

These pilot projects will set an example for the High-rise multifamily new construction industry. Census housing data show that this multifamily subset is a growing component of the residential new construction market, as land prices and awareness about reducing sprawl change land use patterns, representing 1/3 of all residential new construction in CA.

Environmental and health outcomes: Consistent with the EPA Pollution Prevention programs goals in their 2006-2011 strategic plan, California has set aggressive goals of reducing greenhouse gas emissions under the AB32 Climate Change Initiative scoping plan. Green Building Alameda County worked with the California Air Resource Board (CARB) to ensure that the green building and energy measures in their programs are consistent in methodology and help to achieve AB32 goals. The GreenPoint Rated Climate Calculator, funded and managed by Green Building Alameda County, has been reviewed and vetted by CARB and the CA Energy Commission (CEC), is referenced in the AB32 Scoping plan, and the inputs are consistent with CPUC Utility program savings methodology. The GreenPoint Rated Climate Calculator quantifies the climate change benefits of building a specific GreenPoint Rated home that has been third party verified.

This project will undertake specific calculations of greenhouse gas reductions as measured from the pilot buildings. Below is an example of the bigger scale potential savings from the GreenPoint Rated program, including its application to High-rise Multifamily projects, using the CARB Methodology for CO2e reductions. While the energy and IAQ measures most directly reduce building operational energy use in BTUS, the integration with green building programs will also help target water savings, reduce the amount of waste sent to landfills, promote use of sustainably manufactured products, and promote healthier interior environments. While the CARB scoping plan outlines the potential for greenhouse gas savings in the residential sector, the savings goals are aggressive and projects such as this help to realize the potential savings.

CARB- Greening New Residential						
Target Year	Total # New Buildings (Cumulative)	Natural Gas Savings (Therms)	Electricity Savings (MWh)	Water Savings (Million Gal)	Solid Waste Savings (Tones)	Metric Ton CO2E Savings
GreenPoint Rated or LEED for Homes						
2010	186,509	12.03	43,693	1984.07	98,267	96,192.1
2011	382,535	24.67	89,615	2085.31	103,281	120,413.0
2012	581,209	37.48	136,158	2113.48	104,676	142,076.4
2013	782,555	50.46	183,327	2141.91	106,085	164,026.8
2014	986,642	63.62	231,137	2171.06	107,528	186,288.6
2015	1,193,508	98.94	359,484	2200.62	108,992	244,163.8
2016	1,403,223	116.33	422,651	2230.94	110,494	273,258.0
2017	1,615,817	133.95	486,684	2261.57	112,011	302,747.8
2018	1,831,347	151.82	551,602	2292.79	113,557	332,651.4
2019	2,046,368	169.65	616,366	2287.38	113,289	361,067.6
2020	2,263,625	187.66	681,804	2311.17	114,467	390,913.0
CUMMULATIVE TOTALS		1,964	7,134,128	400,616	10,733,829	

Assumptions			
Title 24 (T-24) Energy Code	Average Natural Gas Usage (Mbtu)	Average Electricity Usage/Home (MWh)	Reduced Peak Demand (kW)
2005 Standard	51.06	2.16	3.17
2008 Standard	46.06	1.67	2.91

The measures are broadly grouped into seven impact categories for the Climate Calculator with corresponding metrics and methodologies:

1. Energy efficiency and energy reduction measures included in Title 24 performance modeling
2. Energy issues not accounted for in Title 24 performance modeling (prescriptive energy requirements, appliances, renewable energy, refrigerants etc.)
3. Outdoor water use
4. Indoor water use
5. Land use and site planning effects on occupant vehicle use
6. Materials and recycling
7. Advanced refrigerants and refrigerant leakage.

The sources of greenhouse gas emissions addressed by the calculator include:

- **Electricity generated by power plants:** For example, 0.49 lbs of CO2e are created for every kilowatt hour (kWh) used in PG&E service territory.[1] Each investor owned utility in California has a corresponding emissions factor of CO2e depending on their mix of power sources.
- **Electricity demand from water use:** On average, the consumption of one million gallons of water in California requires 3950 kWh of electricity for conveyance and treatment.[2] Thus, water savings can be equated to GHG emissions. For the Calculator, the actual location of the project (zip code) will be used to determine the amount of energy embedded in water
- **Heating with natural gas:** In California, 11.6 lbs CO_2e are generated per therm of natural gas used.[3]
- **Transportation as a function of density:** Emissions from mobile sources are calculated using vehicle miles traveled (VMT), engine data (e.g. engine type and fuel efficiency), and GHG emissions per mile traveled. Research has shown that the average number of housing units per residential acre (which excludes other land uses) correlates well with the average vehicle miles traveled (VMT); the higher the density the lower the VMT.[4] As such, it is possible to predict VMT reduction based on change in density at the project level. But density must be done correctly; the Calculator only shows savings if alternative transportation options and pedestrian-friendly design are included as well.
- **Waste materials going to the landfill:** Construction waste typically includes wood, wallboard, corrugated (cardboard), concrete, metal, green waste and other debris. Each has a corresponding GHG emissions factor that is a function of embodied energy in production, transportation, and landfilling.[5] Material waste streams analyzed in the Calculator include wood, cardboard, concrete, green waste, metal, and mixed materials sent to recycling centers (if the average facility recycling rate is known).
- **Leakage of refrigerants:** Gases used in refrigeration escape at a rate of 2% a year, or 1 lb per year for a typical home application.6 Each refrigerant has an associated global warming potential (GWP) related to this amount and interval that can be compared to the same mass of CO2 (with a GWP of 1).

Target Audience:
This project will improve the GreenPoint Rated program's consistency with EPA programs, and ensure optimal applicability to the complex Multifamily High-rise market sector that includes the following mix of distinguishing characteristics:

- Ownership vs. rental
- Affordable units vs. market rate
- Common areas vs. individual units
- Historic structures
- Condominiums

Primary Audiences: *Multifamily developers, building owners and operators, including affordable housing, homebuyers, homeowners & tenants.* Our primary goal is to create a program that will be a

[1] California Climate Action Registry, http://www.climateregistry.org/CARROT/public/reports.aspx, Clean Air and Climate Protection (CACP), ICLEI and National Association of Clean Air Agencies (NACAA), www.cacpsoftware.org.
[2] CEC Staff Report: California's Water-Energy Balance (Report CEC-700-2005-11-SF).
[3] California Climate Action Registry General Reporting Protocol, Version 2.2, March 2007.
[4] Holtzclaw, John, *Smart Growth As Seen From the Air, Convenient Neighborhood, Skip the Car*, June 2000, www.sierraclub.org/sprawl/transportation/holtzclaw-awma.pdf
[5] Waste Reduction Model (WARM) calculator, US EPA, www.epa.gov
[6] LEED NC Reference Guide Version 2.2, US Green Building Council, October 2005

driver for market transformation. It must appeal to the property owners and developers and create value for them, and it must offer clear benefits to the homeowner or tenant.
Secondary audiences: *Public agencies, Housing Authorities, Utilities.* Our secondary objective is to influence public policy and incentive programs within the state. GreenPoint Rated is a tool for state and local government agencies in implementing climate action plans.

Outcome Measures

The expected outcomes of this project are:

- High-rise Multifamily ENERGY STAR (HRMFES) and Indoor Air Plus Multifamily (IAPMF) programs' criteria will be optimized for application to the California market,
- These program criteria will be implemented and demonstrated in at least two pilot projects in San Francisco and Alameda Counties,
- The criteria will be widely adopted through the vehicles of green building and Utility program collaboration.

The environmental outcomes and impact will be measured through two primary mechanisms: the GreenPoint Rated Climate Calculator, and building benchmarking using the EPA ENERGYSTAR Portfolio Manager. The pilot projects will result in specific savings attributed to those buildings as compared with a code minimum building. Both the simulated (using CEC approved software EnergyPro) and measured savings will be reported. It is assumed that a project meeting Pilot criteria will save on the magnitude of 10.2 Mbtu of gas, .43 MWh of electricity and .63 Kw of peak demand above and beyond a typical code home times the number of dwelling units in the project. Wide scale market adoption of the program will replicate those savings in the number of buildings meeting the standard. A likely impact for the first three years of the High-rise program might be 20 buildings totaling 10,000 dwelling units statewide.
See details about savings assumptions above.

Output Measures to be delivered as project scope:

- Convene partners to clarify roles and process
- Translate EPA national ENERGY STAR Pilot program material to California version for use in communicating requirements to pilot projects
- Engage consultant for technical specification writing of IAP program application to multifamily
- Conduct Indoor Air Plus analysis for applicability of existing single family RNC program to High-rise Multifamily market.
- Add EPA Programs criteria to GreenPoint Rated New Homes Multifamily Program
- Participate in LEED Homes Mid-rise working group to ensure consistency with subject area experts on MF IAQ protocols
- Select and enroll participation of pilot projects
- Conduct energy analysis of cost-effective improvements, provide assistance to Pilot projects for green building program qualification
- Verify pilot projects, collect billing data
- Benchmark projects in EPA portfolio manager
- Refine Green Building program integration and equivalencies
- Develop Case Studies of Pilots for inclusion in Build It Green marketing and training material
- Monitor and evaluate projects, report on pilot successes and lessons learned to EPA

Projects that participate in the ESHRMF pilot receive:

- PG&E (CMFNH)- Incentives and program services
- Free technical support to meet ENERGY STAR Pilot requirements

- Free technical support to meet Green Building Program (LEED Homes, GPR, Green Communities) requirements
- Benchmark building to track effectiveness of energy savings measures installed
- ENERGY STAR Marketing Benefits
- Eligibility to participate in EPA IAP Multifamily pilot program

Timeline and Deliverables (revised 7-29-09)

Key Deliverables		
Development, Pilots, and post-construction verification		Timeline
	Convene partners to clarify roles and process	Oct-09
	Translate EPA national program material to California version for use in communicating requirements to pilot projects	Oct-09
	Conduct Indoor Air Plus analysis for applicability of existing single family RNC program to Highrise Multifamily market	Oct-Dec-09
	Preliminary addition of EPA Program criteria to Multifamily GreenPoint Rated program	Aug-09
	Select and enroll participation of pilot projects	Oct-09
	Conduct energy analysis of cost-effective improvements, provide assistance to Pilot projects for green building program qualification	Oct 09-Nov 09
	Verify projects, collect billing data	Mar 2010- Oct 2011
	Refine Green Building program integration and equivalencies	Mar 2010-Oct 2011
	Develop Case Studies of Pilots	June 2011-Oct 2011

See "Workplan" (attached) for detailed information.

Budget (revised 7-29-09)

ENERGY STAR / IAP in Multifamily Buildings						
Personnel		Notes	Narrative	EPA Request	Match	Total
	SFE Commercial Green Building Coordinator Rich Chien	24% FTE	Oversee grant, evaluation, reporitng, Identify pilot projects, provide technical assistance, market program, integrate Pilots to GreenPoint Rated, define and publish ESHRMF Participation and Verification criteria	$16,000	$5,000	$21,000
	SFE Residential Green Building Coordinator Barry Hooper	23%FTE	Reporting and Eval, Identify pilot projects, technical assistance, market program, integrate Pilots to GreenPoint Rated, define and publish ESHRMF Participation and Verification criteria	$14,568	$3,000	$17,568
	TOTAL Personnel			$ 30,568	$8,000	$38,568
	Fringes	at 28%	0.28	$ 8,559	$ 2,240	$10,799
	TOTAL Personnel with fringes			$39,127	$10,240	$49,367
Contract/ partners						
	Green Building in Alameda County	Karen Kho Heather Larson	Identify pilot projects, provide technical assistance, market pilot program, integrateto GreenPoint Rated, work with partners to define and publish ESHRMF Participation and Verification criteria for CA, Energy Verification Services	$23,947	$5,000	$28,947
	Consultant		Technical assistance. Contractor will be hired in keeping with standard EPA requirements	$9,000		$9,000
	TOTAL Consultant			$32,947	$5,000	$37,947
Travel						
			2 staff, airfare and lodging. One conference	$2,000	$ -	$2,000
	TOTAL Travel			$2,000	$ -	$2,000
Supplies						
			Outreach materials		$2,500	$ 2,500
	TOTAL Supplies			$ -	$2,500	$2,500
Project SubTotal				$74,074	$17,740	$91,814
	Indirect	At 8%	0.08	$5,926	$1,419	$7,345
PROJECT GRAND TOTAL				$80,000	$19,159	$99,159

APPLICATION FOR FEDERAL ASSISTANCE

Date: July 27, 2009 R9 Tracking #: 09-505

Name/Address of Applicant: Rich Chien
Department of the Environment City and County of San Francisco
11 Grove Street

San Francisco, CA 94102

The Environmental Protection Agency (EPA), Region 9, is pleased to announce the availability of financial assistance as follows:

APPLICATION DUE DATE: August 4, 2009

PROGRAM TITLE: Energy STAR Multifamily High Rise Pilot

X NEW PROJECT AMENDMENT

STATUTORY AUTHORITY: Clean Air Act: Sec. 103

FEDERAL FUNDS AVAILABLE: $80,000

REQUIRED NON-FEDERAL MATCH: 5% or $4,211

CATALOG OF FEDERAL DOMESTIC ASSISTANCE NO.: 66. 717

DELEGATION OF AUTHORITY (EPA use only): 40 CFR PART 30

WAS THIS PROPOSAL SUBJECT TO COMPETITION (EPA use only): Yes

The application kit (including instructions) for **REGULAR AWARDS** is available through the internet at: http://www.epa.gov/region09/funding/applying.html . If you require a hard copy of the application kit, please contact Kathy Goetz at 415-972-3702. Please ensure that the "R9 Tracking #" (located in the upper-right hand corner of this guidance letter) is reflected on the upper-right hand corner of the application (SF-424). Please submit the **original and one copy of your application and a FINAL work plan** to the address below:

Grants Management Office, MTS-7
Management and Technical Services Division
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105

Please obtain a copy of the Code of Federal Regulations (CFR), Title 40, Parts 1-49, and the Office of Management and Budget (OMB) Circulars, which are applicable to your grant or cooperative agreement, at your local U.S. Government Bookstore, or from the U.S. Government Printing Office at (202) 512-1800, or through the internet at http://www.epa.gov/region9/funding

Questions regarding the application or administrative/fiscal matters should be referred to Elizabeth Armour, of the Grants Management Office, at (415) 947-4264. Please call me at (415) 972-3286 regarding programmatic questions (e.g. development of workplan).

Sincerely,
/s/ Leif Magnuson

EPA Project Officer

cc: Debbie Raphael,Recipient's Program Manager
Elizabeth Armour, EPA Grants Specialist, MTS-7
Martha Villarreal, Workleader (WL)

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23. Describe the source of funds.
Environmental Protection Agency-Region 9

24. Describe the grant-funded project clearly, concisely and in layman's terms.
The ENERGYSTAR/IAP Mutifamily Highrise Pilot is a collaboration of the San Francisco Department of the Environment (SF Environment), and Alameda County's Green Building in (a program of Stopwaste.org) to work with key nonprofit organizations and housing developers to research and develop a new protocol for ENERGYSTAR in Multifamily High-rise residential and mixed-use buildings. This is an emergent segment of the residential building stock that has yet to implement a unique labeling standard and protocol for ENRGYSTAR homes. The results of this project will be used as reference for developers and home owners to achieve the highest rates of energy savings.

25. Provide context and detail to the grant so that the proposed project can be compared to current operations.
The lead agency in the project, SF Environment, has been charged with developing and supporting environmental actions and programs throughout the City and County of San Francisco. In 2006, San Francisco became the first local government to have its greenhouse gas emissions certified by the California Climate Action Registry. In addition to its policy work, SF Environment operates programs and services targeting the municipal, commercial and residential sectors. SF Environment's Private Sector Green Building Program will implement this project. It leads development and implementation of commercial and residential green building requirements and initiatives to reduce energy, water and other resource use in buildings, and provide healthy indoor environments. Key activities include collaborating with other departments on implementation of the City's private sector green building ordinance, and providing technical assistance, education, and market transformation strategic support to industry stakeholders.

This project will result in the development of criteria that increases efficiency in the use of raw materials, energy and water in San Francisco's high rise buildings and help the City achieve its Climate Action Plan goals.

26. Identify any ongoing costs for the Department once the grant funds expire, such as new personnel, new equipment, new leases, etc and how the Department would fund such future costs. These funds help the SF Environment Green Building team to perform its regular duties of supporting the implementation of green building practices throughout the City. There will be no ongoing costs to SF Environment once grant funds expire.

27. If the grant period has begun before the Department has been given Board of Supervisor approval, the Department should state why it is late in seeking approval and the resolution must provide for retroactivity. NA—the project will start once funds are approved by the Board of Supervisors.

28. State if the Department has accepted the grant or encumbered any expenses that the grant funds would reimburse the City. The Department should state why they have either accepted and/or began expending the grant funds before receiving approval. NA

29. If grant funds have been expended or encumbered, state the amount of funds that have been expended or encumbered and for what purpose. NA

30. If there is a significant delay in seeking Board of Supervisor approval from the time the grant period began, state how the proposed project would be completed in the remaining period of time available and/or if the Department has asked for or received an extension of the grant period. NA

31. If the grant is a multi-year grant, state the amount of the grant in future years and if future years would be included in the Department's budget. Include a proposed multiyear budget. This project will span two years and funds will be allotted proportionally to the amount of work done in each year.

32. Indicate whether or not matching funds are required from the City, and if so, in what amount and the source of such matching funds. 5% of total budget which is $4,211

33. If matching funds are not required but the Department is providing in-kind contributions for the grant, the Department should clearly state how you are proposing to provide in-kind contributions. Also state whether these in-kind contributions are new services to supplement the grant or existing services. This grant helps the Department perform its regular duties.

34. Provide a detailed budget by object including personnel detail, equipment detail and details on services/consultants/contractors. Each line item in the budget should be explained. See attached budget

35. The number of full time equivalent positions (FTE), the Job Title, Classification, and percentage of fringe benefits should be clearly stated in the budget of the grant. In most cases, any position funded under a grant should be "G" coded, or designated as a grant funded position that would terminate when the grant expires. The resolution should state that the position(s) should be "G" coded. See attached budget

36. If a portion of the grant funds would be spent on contractual services, the Department needs to clarify how those contracts were awarded, whether a sole-source or an RFP process. If a contract is proposed to be awarded on a sole source basis, the Department needs to clearly explain why the Department chose the contractor. The Department should provide a detailed budget for the contractual services, including the number of hours dedicated to the project and the hourly rate if applicable. SF Environment will provide a sub-award of $23,947, which will not be put out to bid because one of the grant requirements of the funding source is that SFE partner with Green Building in Alameda County: a Program of Stopwaste.org, which represents the Alameda County Waste Management Authority and Source Reduction & Recycling Board. A smaller amount of funding ($9,000) will be provided to a contractor who was awarded a Professional Services Contract with the City which was entered into through standard City procedures for procurement of services. See attached budget for more details.

37. If a Department plans on work-ordering grant funds to another Department, the Department should note what Department would receive the work-order and what services will be provided for the work ordered funds. NA

38. Indicate if indirect costs were included in the budget. If indirect costs are included, state how the indirect cost rate was determined. If indirect costs were not included, indicate why. Indirect costs of 8%of total budget which is $ 5,926 were included in the budget. This is the amount allowed by the funding agency.

39. If travel is included in the budget, the Department should detail how many people are traveling, their identities (i.e. City employees or consultants), where they are going and for how long. $2,000 of the budget has been allotted for travel by two City employees. Travel will be done in San Francisco and the East Bay. The length of time will be determined by the conferences held. Overnight stay will not exceed two days.

40. All grant reports must include a form entitled the "Grant Application Information Form" with a Disability Access Checklist at the end.